



Forest Insect & Disease Management

Survey Report

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ASPEN MORTALITY ON MICHIGAN $\frac{1}{4}$ TOWNSHIP RESEARCH AREAS

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INTRODUCTION

During the past summer, reports were received concerning mortality of aspen coppice on several of the $\frac{1}{4}$ Township Research Areas in Roscommon and Kalkaska Counties.

On September 11 and 12, a survey of the suspected mortality was conducted by Dan Mosher and Harold Kollmeyer of the Forestry Division and Robert Anderson, Pathologist with State and Private Forestry in St. Paul, Minnesota. Assistance in locating the areas was given by Dick Moran of Wildlife Division.

RESULTS

No significant insect or disease problem was found. Several agents that can be considered of minor importance were found to be affecting small numbers of aspen sprouts. A summary of the survey findings is given in Table 1.

Significant mortality of aspen coppice was only found on burned areas in the Nine Mile Lake Unit and the Sharon Unit. Apparently fires last spring injured or killed the aspen coppice, allowing invasion by *Cytospora* canker as a secondary agent. Resprouting was sufficient on most of the burned sites to fully restock the areas with no apparent loss of vigor. *Cytospora* was not found to be infesting new sprouts except in isolated cases where sprouts were weakened by borer attacks or other causes.

The only other appreciable mortality was found in a small 1- to 2-acre area in the Russell Lake Unit. *Cytospora* canker and a flat-headed wood borer (*Agrilus hornii*) were responsible for substantial mortality on this small area. Severe

competition by sweet fern and very poor stocking were believed to be important predisposing factors. Deer browsing and venturia shoot blight were also found on this small area.

Venturia shoot blight was found on all of the areas and ranged from light to heavy in severity. This disease infests only the current year's shoots and does not kill trees. In some areas, repeated attacks by this fungus has caused the formation of tops that are more forked and bushy than normal. This disease fluctuates in severity from year to year, according to weather conditions, and is a normal occurrence in any young aspen stand.

The only insect that was found to be killing an occasional sprout was the borer, Agrilus hornii. This insect prefers sparsely stocked stands and stands on poor sites. The small numbers of this borer found on the research areas must be considered a normal occurrence.

CONCLUSIONS

At this time there are no insect or disease problems, on the research areas inspected, that will significantly affect stocking levels or browse production.

Table 1. SUMMARY OF SURVEY FINDINGS

<u>Area (Treatment and Location)</u>	<u>Findings (Extent)</u>
Nine Mile Lake Unit (75%) SE $\frac{1}{4}$, T22N, R1W Roscommon County	Cytospora Canker - (found as secondary agent on dead coppice in burned areas) <u>Agrilus hornii</u> - (very light; often found in conjunction with cytospora canker) Venturia Shoot Blight - (light to heavy)
Lanes Lake Unit (50%) SE $\frac{1}{4}$, T22N, R2W Roscommon County	<u>Agrilus hornii</u> - (Very light; often found with cytospora) Venturia Shoot Blight - (light to moderate)
Russell Lake Unit (50%) NE $\frac{1}{4}$, T23N, R2W Roscommon County	Cytospora Canker - (causing significant mortality on one small area) <u>Agrilus hornii</u> - (light) Venturia Shoot Blight - (light to heavy; causing some bushy tops) Deer Browsing - (contributing to formation of bushy tops on one small area)
Townline Creek Flooding (25%) SE $\frac{1}{4}$, T21N, R4W Roscommon County	Venturia Shoot Blight (light)
Sharon Unit (75%) SE $\frac{1}{4}$, T25N, R6W Kalkaska County	Cytospora Canker - (found as secondary agent on dead coppice in burned areas) Venturia Shoot Blight - (light to moderate)